Postscript (February, 1919).

After the above paper was written I had an opportunity of spending two days at the Awapiri out-station in the upper valley of the Swale. The structure of the Notocene rocks in this area proved much too complex to unravel in the time available, but the following points were ascertained. At the upper end of the Swale limestone gorge the upper part of the Amuri limestone rests against the great Clarence fault without the interposition of the "grey marls" and great Marlborough conglomerate. Farther to the north-east an alternation of Amuri limestone and conglomerate occurs, doubtless due to faulting, so that the limestone is repeated at least three times. From a stratigraphical point of view the most interesting fact ascertained was the presence of a mudstone resembling the "grey marls" and containing rare Oamaruian fossils, which apparently lies between the limestone and the conglomerate. This mudstone is in places crowded with small and large rounded boulders of Amuri limestone. This observation points to the probability of an unconformity between the "grey marls" and the lower beds. I hope to have an opportunity of revisiting this area in the near future and furnishing a connected account of its structure and stratigraphy.

Art. XXXIII.—*Descriptions of New Zealand Lepidoptera.*

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Communicated by G. V. Hudson, F.E.S.

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These notes are based as usual on material kindly sent by Messrs. Hudson and Philpott, and include ten new species. The discovery of an example of the Diplosaridae shows that the possibilities of surprise are not yet exhausted.

Caradrinidae.

Aletia falsidica Meyr.

A ♂ (36 mm.), received from Mount Earnslaw (Hudson), has antennae shortly bipectinated (*a* 1, *b* 1½), towards apex simple: this character establishes the distinction from *grisecipennis*, which has antennae of ♂ simple.

Hydriomenidae.

Chloroclystis semochlora n. sp.

♂♀. 26–28 mm. Head, thorax, and abdomen green, patagia tipped with grey hairs beyond a black bar. Palpi 2, green, tip whitish. Antennal ciliations fasciculated (3½). Forewings broad-triangular, termen hardly waved, rounded, rather oblique; green; basal, second, and third fasciae deeper olive-green, especially third, somewhat curved, waved, slightly marked with black on edges, third preceded and followed by slight whitish

suffusion in disc; fourth fascia composed of three waved slightly curved somewhat darker lines, edged posteriorly above middle by a curved black line edged with white posteriorly and followed by a roundish grey spot becoming whitish anteriorly; fifth fascia indicated by small black marks between this spot and costa, elsewhere by faint traces of whitish lines and some black marks on veins; subterminal line pale bluish-green, waved-dentate; a fine black interrupted terminal line: cilia pale-greyish, towards base triangularly barred with darker grey. Hindwings with termen rather unevenly rounded; grey-whitish, on dorsal half with more or less marked grey waved transverse lines, two of these towards tornus suffusedly blackish on dorsal area; a grey terminal fascia enclosing a waved-dentate whitish line; lower half of termen sometimes suffused with light green; a fine interrupted blackish terminal line: cilia pale grey, with indications of darker bars.

Mount Egmont, 3,000 ft., in February (Hudson); two specimens. Sent with *paralodes* (to which it is nearest) and regarded as a form of it, but larger, greener, and quite distinct by absence of black band on abdomen, broader wings without the black markings of *paralodes*, but with a characteristic grey spot beyond median band, and somewhat shorter fascicles of antennae.

Xanthorhoe eupitheciaria Guén.

Closely related to *cinerearia*, but slightly larger, apex of forewings somewhat more pointed and termen less rounded, ground colour of forewings and hindwings whitish, not appearing grey.

I have regarded this as the mountain form of *cinerearia*, but Mr. Philpott is, I believe, of opinion that it is specifically distinct, and this is probably correct. If so, the name *eupitheciaria* Guén. is properly applicable to it; Walker's synonyms are, according to my notes, all referable to *cinerearia* proper. I possess *eupitheciaria* from Mount Arthur, Mount Hutt, and Lake Wakatipu (3,000–4,000 ft.), and it seems common in the mountains of the South Island.

Xanthorhoe obarata Feld.

I agree with Mr. Philpott's suggestion that *X. cymozeucta* Meyr. is only a synonym of *X. obarata* Feld. My examples of *X. obarata* were old and not in very good condition, but I think there is no true distinction.

Selidosemidae.

Selidosema prototoxa n. sp.

♀. 34 m. Head and thorax whitish-grey, partially tinged with brownish, with scattered black specks. Palpi 2½, grey. Abdomen pale greyish-ochreous, sprinkled with fuscous on basal half. Forewings somewhat elongate-triangular, termen rounded, rather oblique; pale fuscous, strewn with irregularly scattered black specks, longitudinally suffused with pale grey (faintly greenish-tinged) in disc above middle, and irregularly on subdorsal area; a short suffused black submedian streak from base; first line dark fuscous, from $\frac{1}{4}$ of costa to $\frac{1}{5}$ of dorsum, acutely angulated in middle, lower half slightly curved; median fuscous, nearly straight, rather irregular; second line dark fuscous, from $\frac{2}{3}$ of costa to $\frac{3}{4}$ of dorsum, rather incurved, more strongly on lower half, nearly followed by a thick parallel dark-grey shade; subterminal line slender, whitish, edged with dark fuscous, nearly obsolete towards middle, strongest near dorsum; some white subdorsal

suffusion between these lines, strongest before subterminal; teeth of subterminal line connected with termen by more or less marked blackish interneural streaks: cilia pale-greyish (imperfect). Hindwings with termen unevenly and irregularly rounded: pale-greyish, with indistinct darker specks, more distinct and blackish-tinged towards termen; an indistinct waved grey subterminal line: cilia pale-greyish.

Tokaanu, in April (Hudson); one specimen. The black basal streak and peculiar form of first line make this species very distinct.

Crambidae.

Crambus meristes n. sp.

♂♀. 16–19 mm. Head, palpi, and thorax dark brown, palpi whitish towards base beneath. Abdomen dark grey. Forewings elongate, posteriorly dilated, costa slightly arched, apex obtuse-pointed, termen slightly rounded, somewhat oblique; dark brown; a moderate ochreous-white median longitudinal streak from base to termen, slightly narrowed towards extremities: cilia grey. Hindwings dark grey: cilia grey or whitish-grey, or in ♀ whitish, with grey subbasal line.

Longwood Range, 2,700 ft., in December (Philpott): seven specimens. Sent (together with examples of *aulistes* and *saristes* from other localities) by Mr. Philpott as *aethonellus*, showing that his remarks in *Trans. N.Z. Inst.*, vol. 49, p. 215, are founded on misconception of these species, which are closely allied but distinct, and seem not to occur together. I therefore indicate the points by which these three other species may be clearly separated from *meristes* and one another—viz., *aethonellus* by the defined white line along costa throughout, *aulistes* by the white line on posterior half of costa only (sent by Mr. Philpott from Flagstaff Hill), and *saristes* by the peculiar form of median streak, which has the terminal fourth suddenly much more slender, the end of the preceding portion tending to show a slight pointed projection beneath it (this is the Seaward Moss species). True *aethonellus* I have from Mount Hutt and Takitimu Mountains.

Tortricidae.

Tortrix antichroa n. sp.

♂. 16 mm. Head light grey. Palpi $2\frac{2}{3}$, whitish-ochreous suffused with pale grey. Antennal ciliations $1\frac{1}{2}$. Thorax yellow-ochreous. Abdomen rather dark grey. Forewings suboblong, slightly dilated posteriorly, costa anteriorly moderately, posteriorly slightly arched, without fold, apex obtuse, termen faintly sinuate beneath apex, slightly oblique; fuscous, with faint violet tinge, somewhat sprinkled with ferruginous; a yellow-ochreous patch occupying basal $\frac{2}{5}$ of wing, edge straight, rather oblique, finely whitish, followed by dark-fuscous suffusion; a small fuscous mark in disc at $\frac{1}{4}$; several darker strigulae or small spots on posterior half of costa: cilia fuscous suffusedly mixed with ferruginous. Hindwings dark grey, somewhat lighter anteriorly: cilia light grey.

Mount Egmont, 3,000 ft., in February (Hudson); one specimen. In colouring recalls *Epichorista hemionana*, but broader-winged.

Diplosaridae.

This family (which may be placed above the Cosmopterygidae) is new to the New Zealand fauna. In general characters it approaches the Cosmopterygidae, but is distinguished from that family by the absence of the

pronounced costal shoulder with scale-projection at about $\frac{1}{3}$ of hindwings, the costal edge being quite regularly arched. The family as hitherto known is entirely restricted to the Hawaiian Islands, where it constitutes the mass of the Micro-Lepidopterous fauna, the known species approaching 300, and indicating a probable total of quite 500. The following species (quite certainly a characteristic member of the family) is the first discovered elsewhere, and is therefore of very great interest; but it must be observed that the *Tineina* of the other Pacific islands are hardly at all known yet (I wish some one would explore them), and some may be found there. The new species would seem, however, to be an extreme straggler from the centre of development.

Irenicodes n. gen.

Head with appressed scales, side tufts somewhat raised; ocelli small, posterior; tongue developed. Antennae $\frac{4}{5}$, in ♂ moderate, filiform, simple, basal joint moderately elongate, without pecten. Labial palpi moderately long, curved, ascending, rather slender, with appressed scales, terminal joint shorter than second, acute. Maxillary palpi rudimentary. Posterior tibiae clothed with long hairs above. Forewings with 1*b* short-furcate, 2 from angle, 3 absent, 6 and 7 out of 8, 7 to costa, 11 from middle. Hindwings $\frac{3}{4}$, narrow-lanceolate: cilia 3; 2–4 parallel, 5 absent, cell open between 4 and 6, 6 and 7 stalked.

This genus represents an advanced form of the family, and therefore offers no assistance towards the problem (at present insoluble) of the geographical origin of the oldest portion of the Hawaiian fauna.

Irenicodes eurychora n. sp.

♂. 13 mm. Head and thorax pale-ochreous. Palpi whitish, second joint suffused with grey anteriorly except at apex. Antennae grey. Abdomen dark grey, anal tuft ochreous-whitish mixed with grey. Forewings narrowly elongate-lanceolate, long-pointed, acute; pale brownish-ochreous; a costal streak of dark-fuscous irroration from base to near apex, and a similar somewhat narrower dorsal streak attenuated to extremities from base to near tornus: cilia grey, towards base scaled with pale ochreous. Hindwings dark fuscous: cilia rather dark grey.

Paekakariki, in March (Hudson): one specimen.

Oecophoridae.

Borkhausenia ancogramma n. sp.

♂. 16 mm. Head ochreous-grey-whitish sprinkled with fuscous. Palpi ochreous-whitish, basal half of second joint and a subapical ring dark fuscous, terminal joint $\frac{2}{3}$ of second, with dark-fuscous subbasal and subapical rings. Antennal ciliations under 1. Thorax fuscous somewhat mixed with ocherous-grey-whitish, suffused with dark fuscous towards margins. Abdomen whitish-ochreous mixed with light-brownish. Forewings elongate, costa gently arched, apex obtuse, termen rounded, rather strongly oblique; pale ochreous irregularly sprinkled with light-brownish and a few dark-fuscous scales; a thick dorsal streak of pale ground-colour from base to near tornus, sprinkled with light fuscous on a patch beyond middle and with dark fuscous on dorsal edge towards base, margined above by an obtusely angulated dark-fuscous streak (suffused above with fuscous) from base of costa to plical

stigma, posteriorly rather expanded and with a short prominence beneath second discal stigma, extremity obliquely truncate, surrounded posteriorly with fuscous suffusion and some dark-fuscous scales; stigmata dark fuscous, plical rather obliquely before first discal, second discal transverse, an additional cloudy dot on margin of dorsal streak between first and second discal; blotches of fuscous suffusion on costa at $\frac{1}{4}$ and middle, latter connected by second discal stigma with dark posterior margin of dorsal streak; a fuscous spot on costa at $\frac{4}{5}$, with very faint indications of subterminal line; two cloudy fuscous costal dots near apex: cilia whitish-ochreous speckled with light-brownish. Hindwings very pale greyish: cilia whitish-ochreous.

Wainuiomata, in December (Hudson); one specimen. The antennal ciliations are perceptibly shorter than in the much less strongly marked *innotella*, in which they are fully 1.

Izatha amorbas Meyr.

Having received a second specimen with the palpi in better condition, I find that (as has been already suggested by Mr. Philpott) the species is properly referable to *Izatha*, not to *Trachypepla*.

Plutellidae.

Orthenches glypharcha n. sp.

♀. 10–11 mm. Head white. Palpi white, with a bronzy lateral line. Antennae white, ringed with dark fuscous, basal portion lined with dark fuscous. Thorax white with a faint bronzy-tinged central line, patagia shining bronze. Abdomen light grey. Forewings elongate, costa moderately arched, apex pointed, termen slightly sinuate, rather strongly oblique; bright shining bronze; markings shining white; a streak along fold from base to $\frac{2}{3}$; an oblique streak from costa before middle to fold; an oblique streak from costa beyond middle not reaching half across wing, and a slightly oblique streak from dorsum before tornus, their apices connected by a purple-black mark; a purplish-black dot on tornus; three small wedge-shaped spots on costa posteriorly; three or four small marks or dots along termen, one below middle forming an erect strigula: cilia grey, basal half bronzy, round apex with three or four white bars. Hindwings grey: cilia light grey, with darker subbasal shade.

Mount Egmont, 3,000 ft., in February (Hudson). A striking and novel form of the genus, with interesting suggestions of relationship to *Protosynaema* and *Glyphipteryx*.

Lyonetiadae.

Erechthias externella Walk.

Mr. Hudson states that *monastra* Meyr. is apparently ♀ of this species, as he has long series of both forms, all *externella* being ♂ and all *monastra* ♀; I fully concur in this conclusion.

Tineidae.

Tinea sphenocosma n. sp.

♀. 11 mm. Head whitish irregularly and suffusedly mixed with fuscous. Palpi fuscous, tip white. Thorax dark fuscous, posterior margin rather broadly white. Abdomen dark grey. Forewings elongate, rather narrow, costa gently arched, apex obtuse-pointed, termen slightly rounded, rather

strongly oblique ; dark fuscous, closely strewn with irregular whitish dots or small spots except towards costa ; eleven slightly oblique transverse or wedge-shaped white spots from costa, first five extended as streaks nearly half across wing, fifth enlarged into a spot at extremity : cilia fuscous with two darker shades, a direct projecting fine dark-fuscous bar at apex, margined on both sides by triangular white spaces, beneath apex a triangular white spot opposite eleventh costal. Hindwings trapezoidal-ovate, fuscous, darker and strongly purple-tinged posteriorly ; cilia grey.

Wellington, in December (Hudson) ; one specimen. It is perhaps possible that this is the other sex of *accusatrix* (of which I have two ♂ specimens only), resembling it in the peculiar apical projection ; but the differences in other respects are so great that I must regard it as distinct until further evidence is available ; the wings are much broader, especially the hindwings, which in *accusatrix* are ovate-lanceolate, acute, and termen of forewings much less oblique ; the conspicuous round black apical spot is entirely absent, and the white markings in cilia round apex quite differently arranged.

Archyala haiosparta n. sp.

♂. 11 mm. Head whitish, somewhat mixed with fuscous on crown (partly rubbed). Palpi grey. Thorax fuscous mixed with dark fuscous and sprinkled with whitish. Abdomen dark grey. Forewings elongate, rather narrow, costa moderately arched, apex obtuse-pointed, termen very obliquely rounded ; violet-fuscous, irrorated with blackish, sprinkled and strigulated with white, especially thickly strigulated along dorsum ; about six obscure oblique dark-fuscous streaks from costa, reaching nearly half across wing ; a small white spot on dorsum before tornus ; two or three whitish dots on costa towards apex : cilia fuscous with two darker shades (imperfect). Hindwings dark grey, suffused with deep purple posteriorly : cilia grey, with darker subbasal shade.

Wainuiomata, in December (Hudson) ; one specimen.

Talaeporia scoriota Meyr.

Further specimens received from West Plains, Invercargill (Philpott), show that *globulosa* Meyr. is only a strongly marked variety of this.

Nepticulidae.

Nepticula perissopa n. sp.

♂ ♀. 6–7 mm. Head and eyecaps whitish-ochreous, centre of crown dark grey or blackish. Thorax dark violet-fuscous. Abdomen grey. Forewings broad-lanceolate ; pale greyish-ochreous, more or less suffused (especially in ♂) with violet-grey, and coarsely and irregularly strewn with dark-fuscous scales, especially towards apex, where in ♀ they form a suffused dark blotch occupying $\frac{1}{4}$ of wing ; an elongate dark-fuscous spot on fold at $\frac{1}{4}$; an elongate blackish spot in disc beyond middle, in ♀ surrounded by a nearly clear space : cilia pale greyish-ochreous, basal $\frac{3}{4}$ coarsely irrorated with blackish round apex and upper part of termen. Hindwings grey : cilia light ochreous-grey.

Mount Egmont, 3,000 ft., in February (Hudson) ; two specimens.